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NAVAL ELECTRONIC SYSTEMS COMMAND WASHINGTON D C
BIBLIOGRAPHY OF ELECTROMAGNETIC ENVIRONMENT (EME) DOCUMENTS. (U)

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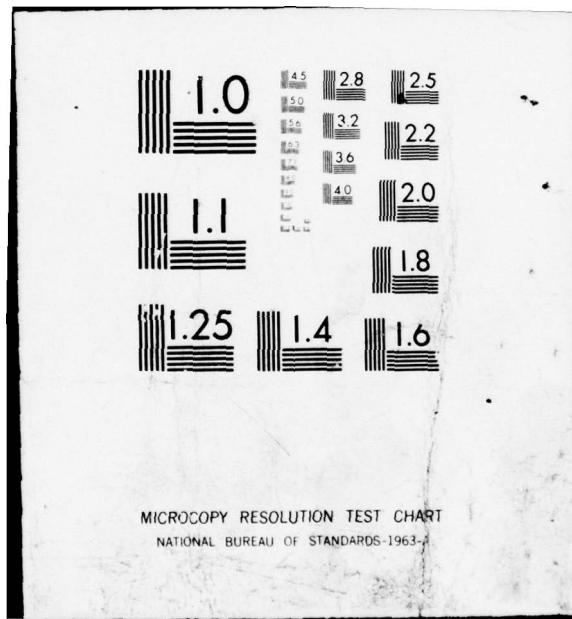
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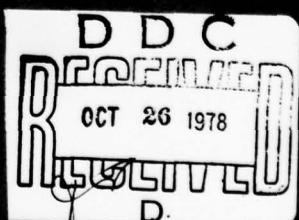


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6 BIBLIOGRAPHY
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11 15 Nov 1977

12 33 p.

Naval Electronic Systems Command

Washington, D.C. 20360

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INTRODUCTION

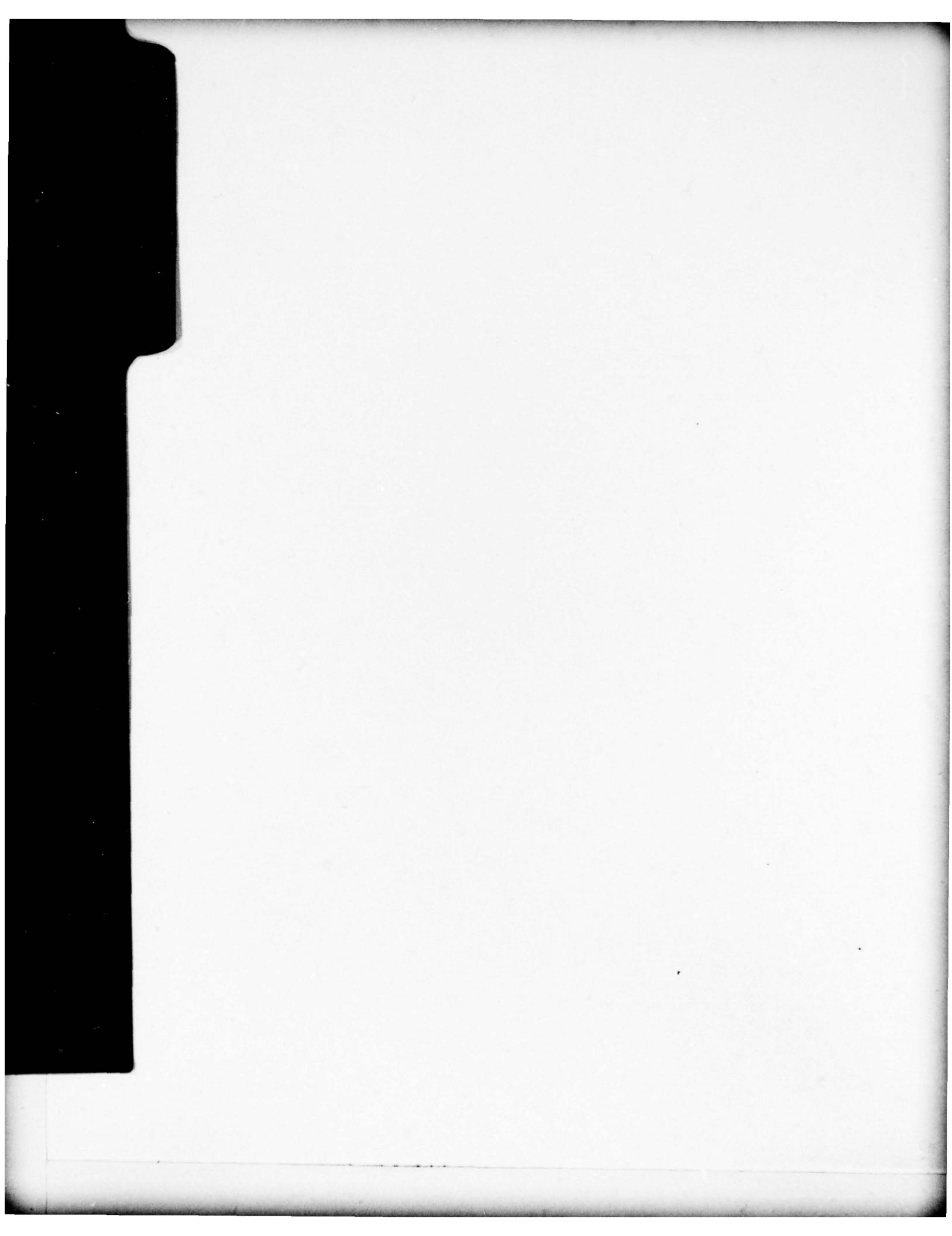
↓ This bibliography lists the official documents currently effective within the Department of Defense which pertain to the electromagnetic environment (EME) and its component disciplines as they affect the Navy. In each section, under the heading of "Other Associated Documents", certain unofficial references are also included where they represent recognized standards, design criteria or other authoritative documents.)

EME is not officially defined in the Department of Defense Dictionary of Military and Associated Terms (JSC Pub. 1). However, in many Navy activities and as used herein, it encompasses all electromagnetic disciplines, and includes electromagnetic compatibility/electromagnetic interference (EMC/EMI), electromagnetic pulse (EMP), electronic countermeasures, electronic counter-countermeasures (ECM/ECCM), radiation hazards (RADHAZ), and natural phenomena.

The final section of the bibliography lists the major documents governing the acquisition and modification of electronic systems and equipment. ↗

It is intended that this bibliography be a working reference document which will assist the staff officer, engineer, technician, etc., involved in electromagnetic environment problems in the fleet. It will be updated automatically on an annual basis.

Recommendations for changes and additions are encouraged and should be addressed to Commander, Naval Electronic Systems Command, (Attn: NAVELEX-095), Washington, D.C. 20360. Additional copies may be requested from the same office.



DOCUMENTS RELATING TO ELECTROMAGNETIC COMPATIBILITY (EMC)/
ELECTROMAGNETIC INTERFERENCE (EMI)

<u>Document Number</u>	<u>Issued</u>	<u>Subject</u>
<u>DIRECTIVES AND INSTRUCTIONS</u>		
DoD Directive		
3222.3	27 Sep 72	DoD Electromagnetic Compatibility Program
3222.xx	(Draft in routing)	Electromagnetic Environment Policy
4630.1	24 Apr 68	Programming of Major Telecommunications Requirements
4630.5	28 Jan 67	Compatibility and Commonality of Equipment for Tactical Command and Control, Communications
4650.1-G	3 Mar 77	Planning Guide for the Review of Telecommunications Systems for Frequency Availability and Electromagnetic Compatibility
4650.1	13 Dec 74	Management and Use of Radio Frequency Spectrum
5100.35	29 Dec 62	Military Communications Electronics Board (MCEB)
5160.57	23 Sep 66	Electromagnetic Compatibility Analysis Center (ECAC)
2400.20B	12 Sep 77	Management and Use of Radio Frequency Spectrum within the Department of the Navy
SECNAVINST		
2410.1B	17 Oct 67	Electromagnetic Compatibility Program Within the Department of the Navy, policy direction

EMC/EMI (Continued)

<u>Document Number</u>	<u>Issued</u>	<u>Subject</u>
OPNAVINST		
2410.11F	6 Nov 72	Procedures for the Processing of Radio Frequency Applications for the Development and Procurement of Electronic Equipment
2410.22C	24 May 68	Reporting of U.S. Military Electronic Equipment Environmental Data
2410.29C	21 Apr 69	Electromagnetic Compatibility Analysis Center; analytic services and data available from
2410.31C	19 May 77	Electromagnetic Compatibility Within the Department of the Navy
5420.21E	1 Oct 76	Navy Department Frequency Allocation Advisory Board
NAVMATINST		
2410.1A	26 Jun 74	Electromagnetic Compatibility (EMC) within the Naval Material Command (NMC); assignment of responsibilities
5420.47	18 Jul 74	Electro-optics Council; establishment of
10380.9	1 Dec 72	Electromagnetic Environment Considerations in the Life Cycle of Navy Electronic/Electrical Equipment and Systems; implementation of
NAVAIRINST		
2410.1B	12 Mar 75	Electromagnetic Compatibility (EMC) Within the Naval Air Systems Command; procedures and requirements for
5400.79	24 Jul 75	Reestablishment of the Tactical Electromagnetic Programs Office
5420.18A	21 Mar 77	Naval Air Systems Command Participation in DoD Advisory Group on Electron Devices

EMC/EMI (Continued)

<u>Document Number</u>	<u>Issued</u>	<u>Subject</u>
NAVSEAINST		
2410.1	18 Oct 76	Radio Frequency Allocation and Assignment Applications for the Development and Procurement of Electronic Equipment; procedures and requirements for
2410.2	13 Jan 77	Electromagnetic Compatibility (EMC) Within the Naval Sea Systems Command
8800.1	7 Dec 76	Protection of Guided Missiles and Missile Sections During Ship Magnetic Treatments
NAVELEXINST		
2410.1A	1 Dec 76	Electromagnetic Compatibility (EMC) Within the Naval Electronic Systems Command
2400.1A	28 Dec 70	Responsibility for Radio Frequency Allocation Matters within NAVELEX
C5400.3	1 Oct 65	TEMPEST Inspection Program; establishment of
5420.6	18 Jun 70	DoD Advisory Group on Electron Devices; Naval Electronic Systems Command, participation in
5430.10A	30 Apr 75	Responsibilities of Naval Electronic Systems Security Engineering Center as NAVELEX Executive Agent for TEMPEST; assignment of
5430.19	18 Apr 74	TEMP (Tactical Electromagnetic Programs) Office (ELEX 095)
4122.1	9 Jul 74	Electromagnetic Environment Considerations in the Life Cycle of Navy Electronic/Electrical Equipment and Systems; implementation of
NAVFACINST		
11012.113A	28 Aug 75	Electronic Compatibility Control Program, Policy

EMC/EMI (Continued)

<u>Document Number</u>	<u>Issued</u>	<u>Subject</u>
<u>MILITARY STANDARDS AND SPECIFICATIONS</u>		
Standards		
MIL-STD-220A	15 Dec 59	Method of Insertion-Loss Measurement for Radio-Frequency Filters
MIL-STD-285	25 Jun 56	Attenuation Measurements for Enclosures, EM Shielding for Electronic Tests Purposes, Method of
MIL-STD-449D	22 Feb 73	Radio Frequency Spectrum Characteristics, Measurement of
MIL-STD-461A thru Notice 6	1 Aug 68 3 Jul 73	Electromagnetic Interference Characteristics Requirements for Equipment
MIL-STD-461.2 (USAF)		Electromagnetic Interference Test Requirements and Test Methods
MIL-STD-462 thru Notice 3	31 Jul 67	Electromagnetic Interference Characteristics, Measurement of
MIL-STD-463 thru Notice 1	9 Jun 66 2 Mar 72	Definition and System of Units, Electromagnetic Interference Technology
MIL-STD-469 thru Notice 1	1 Dec 66 30 Mar 67	Radar Engineering Design Requirements for Electromagnetic Compatibility
MIL-STD-704A/B	17 Nov 75	Aircraft Electrical Power Characteristics
MIL-STD-1310C (NAVY)	30 Nov 73	Shipboard Bonding, Grounding, and other Techniques for Electromagnetic Compatibility and Safety Reliability Reports
MIL-STD-1337 (SHIPS)	20 Aug 71	Electric Portable Handtools, General Suppression, System Design Requirements
MIL-STD-1399	16 Jul 73	Interface Standards for Shipboard Systems - Section 103 - Electrical Power-Alternating Current
MIL-STD-1541 (USAF)	15 Oct 73	Electromagnetic Compatibility Requirements for Space Systems

EMC/EMI (Continued)

<u>Document Number</u>	<u>Issued</u>	<u>Subject</u>
Standards (Continued)		
MIL-STD-1542 (USAF)	15 Apr 74	Electromagnetic Compatibility (EMC) and Grounding Requirements for Space Facilities
MIL-STD-1605 (NAVY)	20 Apr 73	Procedures for Conducting a Shipboard EMI Survey - (Surface Ships)
Specifications		
MIL-B-5807B	31 Aug 70	Bonding, Electrical and Lightning Protection for Aerospace Systems
MIL-E-6051D(1)	5 Jul 68	Electromagnetic Compatibility Requirements, Systems (Aircraft and Associated Weapons Systems)
MIL-I-16165D	22 Aug 61	Interference Shielding, Engine Electrical System
MIL-C-11693B	8 Oct 71	Capacitor, Feed Through, Radio Interference Reduction, AC and DC (Hermetically Sealed in Metal Cases), Established and Non-established Reliability General Specifications for (This MIL SPEC is one of a series of specifications on capacitors, filters, resistors, etc.)
STANAGS		
3614 (NATO)	26 Jan 76	Electromagnetic Compatibility
3516 (NATO)	17 Nov 71	Electromagnetic Compatibility Test Methods for Aircraft Electrical and Electronic Equipment
Military Handbook		
MIL-HDBK-235 (Part 1)	23 Jun 72	Electromagnetic (radiated) Environment, considerations for

EMC/EMI (Continued)

<u>Document Number</u>	<u>Issued</u>	<u>Subject</u>
Military Handbook (Continued)		
MIL-HDBK-235 (Part 2 - Friendly) (Part 3 - Hostile)		Design and Procurement of Electrical and Electronic Equipment, Subsystems and Systems
MIL-HDBK-237	20 Apr 73	Electromagnetic Compatibility/Interference Program Requirements
MIL-HDBK-241	2 Aug 74	Design Guide for EMI Reduction in Power Supplies

MANUALS

NAVAIR		
5335	Apr 72	Electromagnetic Compatibility
NAVELEX		
0101,106	Aug 71	Naval Shore Electronics Criteria, Electromagnetic Compatibility and Electromagnetic Radiation Hazards
NAVSEA		
OP 3840		Electromagnetic Criteria for Surface Missile Systems (U) (Classified)
0967-LP266-1010	Nov 68	R.F. Compatibility and Electromagnetic Interference Reduction Techniques for Forces Afloat
0967-LP-033-0010	Apr 70	EM Limits - Submarine Electronic Systems
0967-LP-000-0150	Jun 72	Electronic Installation and Maintenance Book, Electromagnetic Interference Reduction
0967-LP-283-5010 CH 5	1 Mar 68 1 Dec 76	Shipboard Electromagnetic Shielding Practices
NAVSHIPS		
94552	7 Sep 62	R.F. Shielding of Ship Hatches and Access Doors

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3. AR 11-13, Army Electronic Compatibility Program, 29 Jul 69.
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9. AFR 80-23, USAF Electromagnetic Compatibility Program.
10. AFSC DH 1-4, Design Handbook, Electromagnetic Compatibility.
11. Rome Air Development Center, Interference Notebook, Jun 66: Vol. 1 - RADC-TR-66-1, Vol. 2 - RADC-7T-66-1.
12. DO-160, Radio Technical Commission for Aeronautics (RTCA), Environmental Conditions and Test Procedures for Airframe Electronic/Electrical Equipment and Instruments, 28 Feb 75.
13. AFM 100-31, Electromagnetic Compatibility and Frequency Management, 18 Jun 65.
14. AR 105-67, Electromagnetic Compatibility Programs - Reporting of U.S. Military Electronic Equipment Environmental Data, 24 May 68.
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AIR 1221 - EMC System Design Requirements
AIR 1255 - Spectrum Analyzers for EMI Measurements
AIR 1147 - EMI ON Aircraft from Jet Engine Charging
AIR 1173 - Test Procedures to Measure the R.F. Shielding Characteristics of EMI Gaskets
AIR 1404 - DC Resistivity vs. F.R. Impedance of EMI Gaskets
AIR 1500 - Bibliography Lossy Filters
AIR 1423 - EMC on Gas Turbine Engines for Aircraft Propulsion
AIR 1425 - Methods of Achieving EMC on Gas Turbine Engines for Self-Propelled Land Vehicles
ARP 935 - Suggested EMI Control Plan Outline
ARP 936 - Capacitor, 10 MFD for EMI Measurements
ARP 937 - Jet Engine Electromagnetic Interference Test Requirements and Test Methods
ARP 958 - Broadband Electromagnetic Interference Measurement of Antennas; Standard Calibration Requirements and Methods
ARP 1172 - Filters, Conventional Electromagnetic Interference Reduction, General Specification for
J551D - Measurement of EMR from a Motor Vehicle or other Combustion-Powered Device (excluding Aircraft).
20. SEMCIP Reference Guide - The Commanding Officer's Guide to the Shipboard Electromagnetic Environment, June 1977.
21. Air Force Systems Command Design Handbook 1-4, Electromagnetic Compatibility, Third Edition, 5 Jan 75.



DOCUMENTS RELATING TO
ELECTROMAGNETIC PULSE (EMP)

Document Number

Issued

Subject

DIRECTIVES AND INSTRUCTIONS

DoD Directive

3222.xx (Draft in routing) Electromagnetic Environment Policy

5210.58 22 Feb 73 DoD Security Classification Guidance Concerning Nuclear Electromagnetic Pulse (NEMP)

NAVMATINST

2410.2 16 Jan 76 Electromagnetic Pulse (EMP) Effects Program; establishment of

5400.17B 21 Apr 76 Nuclear Weapon Effects Program Technical and Management Responsibilities and Procedures.

NAVAIRINST

2410.2 (Draft) Electromagnetic Pulse (EMP) Protection within the Naval Air Systems Command; procedures and Requirements for

NAVSEAINST

2410.3 12 Jan 77 Electromagnetic Pulse (EMP) Considerations within the Naval Sea Systems Command

NAVELEXINST

2410.2 7 Feb 77 Electromagnetic Pulse (EMP) Effects Program within NAVELEX, Implementation of

MILITARY STANDARDS AND SPECIFICATIONS

Standards

MIL-STD-1310D

30 Nov 73
(Draft)

Shipboard Bonding, Grounding and other Techniques for EMC and Safety Reliability Reports.

EMP (Continued)

<u>Document Number</u>	<u>Issued</u>	<u>Subject</u>
Standards (Continued)		
MIL-STD-3920.4A	13 Jan 75	Naval Combat Survivability Program, establishment of
Military Handbook		
MIL-HDBK-237	20 Apr 73	Electromagnetic Compatibility Interference Program Requirements (para 4.1.4.5)

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NAVSEA

0900-LP-058-3010	Mar 70	Shipboard Installation Practices for Electromagnetic Pulse Vulnerability Reduction
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2. AMC Pamphlet 706-235, Hardening Weapon Systems Against RF Energy.
3. Defense Nuclear Agency:
 - a. DNA 2114-H, EMP Handbook, Nov 71
Vol. I - Design (C)
Vol. II - Analysis and Testing (C)
Vol. III- Environment and Application (S)
Vol. IV- Resources (C)
 - b. DNA 3286-H, DNA EMP Preferred Test Procedures, Sep 76
 - c. Capabilities of Nuclear Weapons, Defense Nuclear Agency Effects Manual No. 1, Jul 72
 - d. EMP Awareness Course Notes, DNA-2772T, Aug 71.
4. Air Force Weapons Laboratory, Kirtland AFB, New Mexico:
 - a. Electromagnetic Pulse Sensor Handbook, Vol. 1, Jun 71
 - b. Electromagnetic Pulse Environment Handbook, Jan 72
 - c. Electromagnetic Pulse Instrumentation Handbook, Oct 71
 - d. Electromagnetic Pulse Note Series:
ACT-1 Analytical and Computational Techniques Notes
EMP-1 Sensor and Simulation Notes
EMP-2 Theoretical Notes
EMP-3 Interaction Notes
PEP-4 Pulsed Electrical Power, Circuit and Electromagnetic System Design Notes.
PEP-5 Pulsed Electrical Power, Dielectric Strength Notes

EMP (Continued)

5. Lawrence Livermore Laboratories:
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7. Naval Surface Weapons Center, White Oak Laboratory:
 - a. NSWC/WOL/TR 75-193 EMP Design Guidelines for Naval Ship Systems, 22 Aug 75
 - b. Engineering Design Guidelines for EMP Hardening of Naval Missiles and Airplanes, Dec 73
8. Defense Civil Preparedness Agency (DCPA) Technical Reports:
 - a. TR-61 EMP Threat and Protective Measures
 - b. TR-61A EMP Protection for Emergency Operating Centers
 - c. TR-61B EMP Protective Systems
 - d. TR-61C EMP Protection for AM Radio Broadcast Stations
 - e. TR-61D EMP and Electric Power Systems
9. Bell Telephone Laboratory, Inc., EMP Engineering and Design Principles, 1975.



DOCUMENTS RELATING TO
RADIATION HAZARDS (RADHAZ)

<u>Document Number</u>	<u>Issued</u>	<u>Subject</u>
<u>DIRECTIVES AND INSTRUCTIONS</u>		
DoD Directive 3222xx	(Draft in routing)	Electromagnetic Environment Policy
OPNAVINST 5101.1C	30 Mar 73	Resolution of Electromagnetic Radiation (EMR) Hazard Problems
NAVMATINST 5101.1A	6 Nov 75	Electromagnetic Radiation (EMR) Hazard Problems, resolution of
NAVAIRINST 8020.4A	10 Jun 75	Hazards of Electromagnetic Radiation to Ordnance (HERO)
NAVSEAINST 5100.1	8 Jan 75	Hazard Control Briefings; requirement for
5101.1	25 May 76	NAVSEA Laser Safety Program
5511.35	23 Feb 77	Hazards of Electromagnetic Radiation to Ordnance; Security classification guide for
8020.2	5 Nov 74	Safety in Operations Involving Electro-Explosive Devices (EED's) and other Explosive Initiating Devices
8020.7	16 Jul 76	Hazards of Electromagnetic Radiation to Ordnance (HERO); policy for conduct of a safety program to alleviate

RADHAZ (Continued)

<u>Document Number</u>	<u>Issued</u>	<u>Subject</u>
NAVELEXINST		
5100.4 CH1	26 Jan 71 18 Aug 71	Field Support for the Electromagnetic Radiation (EMR) Hazards Program
5430.11	18 Aug 70	Responsibilities for EMR Hazard Problems; assignment of
NAVFACINST		
11010.57A	19 May 76	Site Approval for Naval Shore Facilities; procedures for obtaining
BUMEDINST		
6470.11A	27 Aug 75	Biological Effects of Electromagnetic Radiation Project Officer, designation of
6470.13A	28 Jan 77	Microwave and Radio Frequency Health
6470.16	15 Jul 76	Microwave Ovens; surveys for health

MILITARY STANDARDS AND SPECIFICATIONS

Standards		
MIL-STD-1310C (NAVY)	30 Nov 73	Shipboard Bonding, Grounding and other Techniques for EMC and Safety Reliability Reports
MIL-STD-1377	20 Aug 71	Effectiveness of Cable, Connector and Weapon Enclosure Shielding and Filters in Precluding Hazards of Electromagnetic Radiation to Ordnance, Measurement of
MIL-STD-1385	6 Apr 72	Preclusion of Ordnance Hazards to Electromagnetic Fields; general requirements for
MIL-STD-1399/408	16 Jul 73	Interface Standard for Shipboard Systems - Sec 408, Electromagnetic Radiation Hazard to Personnel and Fuels
MIL-STD-1399/409	31 Aug 73	Interface Standard for Shipboard Systems - Sec 409, Electromagnetic Radiation Hazards to Ordnance
MIL-STD-1512 Notice 1 (USAF)	21 Mar 72 6 Jan 76	Electro-Explosive Subsystems, Electronically Initiated, Design Requirements and Test Methods

RADHAZ (Continued)

<u>Document Number</u>	<u>Issued</u>	<u>Subject</u>
Military Handbook MIL-HDBK-238	10 Aug 73	Electromagnetic Radiation Hazards

MANUALS

NAVSEA

0967-LP-316-3010	10 Oct 71	Instruction Manual for Microwave Radiation Protective Clothing
0900-LP-005-8000	Sep 72	Technical Manual for Radio-Frequency Radiation Hazards - Personnel - Shipboard
0967-LP-317-7010	Jan 73	Radio Frequency Burn Hazards Reduction
OP-5 (Vol. 1)	1 Jul 76	Ammunition and Explosives Ashore
OD 30393(1)	15 Sep 74	Design Principles and Practices for Controlling Hazards of Electromagnetic Radiation to Ordnance (HERO Design Guide)

NAVSEA/NAVAIR

OP3565/16-1-529 (CH6 in process)	15 Jun 67	Technical Manual, Radiofrequency Hazards to Ordnance, Personnel and Fuels
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NAVAIR

AR-46A	6 Jun 75	Aeronautical Requirements for HERO Tests, Analysis and Documentation
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NAVELEX

0101,106	Aug 71	Naval Shore Electronics, Electromagnetic Compatibility and Electromagnetic Radiation Hazards
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NAVFAC

DM4	Mar 74	Design Manual for Electrical Engineers
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NAVORD

OD 44881	Jan 72	Safety and Performance Tests for Qualifications of Explosives
OD 10773	15 Jan 73	Safety Principles for Operations Involving Electro-Explosive Devices.

RADHAZ (Continued)

<u>Document Number</u>	<u>Issued</u>	<u>Subject</u>
NAVMED		
P-5052-35	24 Feb 69	Control to Hazards to Health From Laser Radiation
P-5055 CH3	73 Nov 76	Radiation Health Protection Manual

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 - a. ANSI C95.1, Safety Level of Electromagnetic Radiation with Respect to Personnel
 - b. ANSI C95.2, Radio Frequency Radiation Warning Symbol, 1966 (Approved by DoD)
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DOCUMENTS RELATING TO ELECTRONIC COUNTERMEASURES (ECM)/
ELECTRONIC COUNTER-COUNTERMEASURES (ECCM)

<u>Document Number</u>	<u>Issued</u>	<u>Subject</u>
<u>DIRECTIVES AND INSTRUCTIONS</u>		
DoD Directive		
C-4600.3	21 May 76	Electronic Counter-Countermeasures (ECCM) Policy (U)
5000.2	18 Jan 77	Major System Acquisition Process (U)
3222.xx	(Draft in routing)	Electromagnetic Environment Policy
SECNAVINST		
C-3430.2	17 Jan 77	Department of Navy Policy Concerning Electronic Counter-Countermeasures (ECCM) in Electronic Systems (U)
OPNAVINST		
S3430.1E	20 Jun 75	Joint Electronic Warfare Policy (U)
S3430.4C	4 Oct 72	Navy Electronic Warfare Organization and Policy (U)
3430.9B	27 Oct 64	Performing Electronic Countermeasures in the United States and Canada
C3430.15B	6 Nov 70	Electronic Warfare Support Measures and Electronic Intelligence Technical Guidance Program (U)
C3430.18A	13 Mar 72	Reporting Meaconing, Intrusion, Jamming and Interference of Electromagnetic Systems (U)
3811.1	8 Sep 75	Threat Support to Weapons Systems Selection and Planning

ECM/ECCM (Continued)

<u>Document Number</u>	<u>Issued</u>	<u>Subject</u>
NAVMATINST		
S3430.2	4 Mar 73	Classified
3882.3	13 Oct 76	Threat Support to Weapons Systems Selection and Planning
3920.4A	13 Jan 75	Navy Combat Survivability Program; Establishment of
NAVAIRINST		
3920.1	28 May 76	Establishment of Naval Air Survivability Program (NASP)
5400.42C	15 Jul 74	Responsibilities for the Naval Air Systems Command Electronic Warfare Threat Environment Simulator Facilities
NAVSECNOTE		
S3490	11 Jan 77	Emission Control (EMCON); policy for (U)
MIL-HANDBOOK		
MIL-STD-235 (Part III)	23 Jun 73	Electromagnetic (Radiated) Environment Considerations for Design and Procurement of Electrical and Electronic Equipment, Subsystems and Systems.

MANUALS

NAVPERS		
92440-C-5 (SECRET)	Sep 68	ECCM Operator Guide (U)
NAVAIR		
AR-107	27 Sep 74	Aeronautical Requirements, Navy Aircraft Survivability/Vulnerability
NAVSEA		
SMS-TG 670 Series (SECRET)	(Various)	CCM Operational Techniques Series (U)
NWP		
12-6 (SECRET)	Jan 76	Tactical EWP Planning Guide (U)

ECM/ECCM (Continued)

<u>Document Number</u>	<u>Issued</u>	<u>Subject</u>
NWP (Continued)		
33(E) (SECRET)	Sep 74	Electronic Warfare (U)

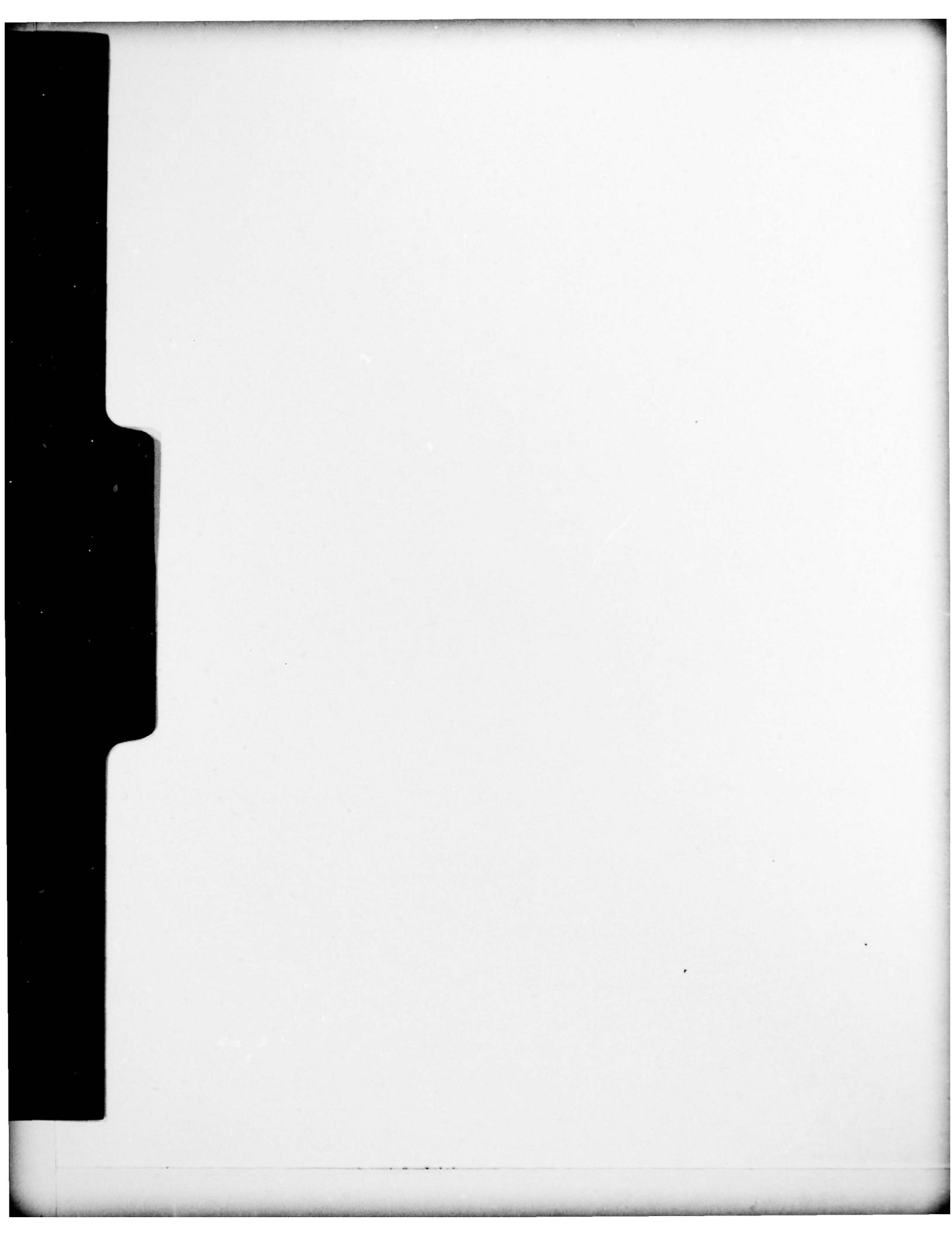
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<u>DIRECTIVES AND INSTRUCTIONS</u>		
DoD Directive 3222.xx	(Draft in <i>routing</i>)	Electromagnetic Environment Policy
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DoD Directive		
5000.1	18 Jan 77	Major System Acquisitions
5000.2	18 Jan 77	Major System Acquisition Process
5000.3	19 Jan 73	Test and Evaluation
SECNAVINST		
5000.1	13 Mar 72	System Acquisition in the Department of Navy
5200.30	27 Aug 75	Management of Decision Coordinating Papers (DCP) and Program Memoranda (PM) within the Department of the Navy.
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